

Section A: Cover Sheet

1. Specify: ☐ agricultural project or ☐ individual application or
☐ urban project ☒ joint application
2. Proposal title: The Save Our Delta Surveys (SODS). A collaborative effort of the cities of Antioch and Pittsburg and the Contra Costa Water District to enhance local water conservation and resource protection in the East Contra Costa County.
3. Principal applicant – organization or affiliation: The City of Pittsburg
4. Contact – name, title: David Hobbs, Water Conservation Coordinator for the City of Pittsburg
5. Mailing address: 65 Civic Avenue, Pittsburg, California 94565
6. Telephone: (925) 252-4110
7. Fax: (925) 252-4004
8. E-mail: dhobbs@ci.pittsburg.ca.us
9. Funds requested – dollar amount: \$50,000
10. Applicant cost share funds pledged – dollar amount: \$50,000
11. Duration – (month/year to month/year): July 1, 2001 to June 30, 2003.
12. State Assembly and Senate districts and Congressional district(s) where the project is to be conducted: State Assembly District – 11th, State Sen. District – 7th, US Congressional District – 7th.
13. Location and geographic boundaries of the project: The project will take place in the municipal jurisdictions of Antioch and Pittsburg.
14. Name and signature of official representing applicant. By signing below, the applicant declares the following:
____ the truthfulness of all representations in the proposal;
____ the individual signing the form is authorized to submit the application on behalf of the applicant;
____ the applicant will comply with contract terms and conditions identified in section 11 of this PSP.

(printed name of applicant)

(date)

(signature of applicant)

Section B: Scope of Work

1. Executive Summary

The Save Our Delta Surveys (SODS) effort will bring together the resources and commitment of the cities of Pittsburg and Antioch, and their raw water supplier the Contra Costa Water District, to enhance their individual capacity to address water conservation and water quality objectives. By utilizing a residential survey as the method to present information and tools to both conserve and protect water resources the SODS effort will develop the kind of water conservation and water quality information and protection effort which can be a model for a sustainable effort to conserve water resources both in the participating communities and in other California jurisdictions.

2. Project Need

Water conservation and water quality sustaining actions by members of the East Contra Costa communities of Pittsburg and Antioch represents a largely untapped source of conservation. The 140,000 residents of Pittsburg and Antioch showed during the drought of the early 1990's that they could modify their behavior to significantly reduce water consumption. It has been a more challenging task to develop local support for sustainable conservation and water quality protection efforts to reduce the demand for water, maintain and enhance local aquatic habitat, and reduce the impact of pollution on water resources during "non-drought" times.

The quality of raw water taken from the Delta by the Contra Costa Water District and supplied to Antioch and Pittsburg is dependent on a variety of factors not the least of which is the care with which these communities address water pollution, aquatic habitat protection, and water conservation. The SODS effort will address this situation by bringing together the resources of Pittsburg, Antioch, CCWD, the Contra Costa Clean Water program, and the assistance of CALFED in a collaborative effort to develop a deeper appreciation of the vulnerability of our water supply and the importance of conservation, pollution control, and habitat protection.

The demand management measures which water suppliers and retailers include in their DWR Urban Water Management Plans and the associated best management practices which signatories (CCWD and Pittsburg) of the California Urban Water Conservation Council's (CUWCC) have committed to implement are mechanisms which can bring about dramatic water conservation results. The SODS effort will enhance the capacity of the participating agencies to address these conservation objectives in a comprehensive fashion and thereby build local capacity for a more sustainable approach to water quality and availability issues.

These efforts become critically important in the context of the operating capacity of the water treatment plants in Antioch and Pittsburg. Both communities are beginning to see limits to their potential for expansion based on the functional capacity of their treatment facilities. By implementing a comprehensive water conservation effort these communities, and their principal raw water supplier CCWD, will be able to stretch water resources to provide for current, and planned, water users.

3. Scope and Objectives of the Project

The Save Our Delta Survey Program has the goal of reducing landscape water use in single family residences; reducing interior household water use with plumbing retrofits and water efficiency appliances; reducing the use of pesticides in single family residences; and increasing the awareness of customers regarding their source of water and where their runoff goes.

The SODS survey will expand the current focus of the water surveys that are done by the participating agencies to address a comprehensive water savings and water quality focus. It is planned that the surveys will take from 1 to 2 hours to complete and includes: inspecting individual irrigation stations and their associated plant material; providing site specific irrigation schedules; adjusting irrigation timers; instructing customer on use of irrigation timers; and suggesting site specific planting and irrigation improvements.

Survey participants will be provided with water conservation literature as well as suggestions for improving the efficiency of their own system. Customers will also be provided integrated pest management information and less toxic pest management will be discussed during the survey as needed. Customers will be given information describing where their source water comes from and where their irrigation runoff goes. Finally, customers will be sent reminders to reduce their watering schedule during the year as climatic conditions reduced the need for irrigation. As an additional component, an interior survey of the water use will be conducted. The interior portion consists of: checking for leaks; checking the water meter; testing flow rates of showerheads and faucets and replacing with high efficient fixtures as needed; testing flush volumes of toilets; replacing flappers as necessary and suggesting replacement of high water consuming toilets with ULFTs.

By approaching water conservation and protection in this fashion, SODS seeks to demonstrate the many ways in which water consumers can make a difference in maintaining the availability and quality of our water resources.

Survey Goals

Improve customer's water use efficiency

Reduce peak demand on water resources

Improve customer's knowledge of where their water comes from and where their irrigation runoff goes (have them become more aware of the "Water Cycle")

Teach customer how to schedule their irrigation timer

Teach customer basic integrated pest management concepts and provide information on additional resources

4. Methods and Procedures

The SODS effort will build on the water conservation survey effort established by the Contra Costa Water District. CCWD has had a Residential Survey Program since 1989. This program has been one of the leading programs of its kind in the state. During the past 11 years, numerous improvements have been made to increase the effectiveness of the survey methods. Specifically, since 1998 a strong emphasis has been placed on the landscape portion of the effort. Compared to savings estimates for surveys by the CUWCC, savings from CCWD Residential surveys are considerably higher. In a study of surveys conducted in 1998, the CCWD residential surveys showed a savings of 55 gallons per day for the average home. However, for homes more than 500 gallons per day prior to the survey, savings jumped to 146 gallons per day or a 20% reduction.

The SOD Surveys use the same methodology as the standard CCWD Residential Survey with the addition of several items. Added to the survey will be the Integrated Pest Management portion, water source and storm drain runoff items. The IPM education will use the techniques and the

educational materials of the City of Antioch and Pittsburg Clean Water Programs. These programs will make available IPM information in cooperation with University of California Cooperative Extension program.

5. Project Schedule

The schedule below breaks out the key tasks and sub-tasks for the project.

| Task | Task Name | Task Description | Costs | Expected Start | Expected Finish |
|----------|--|--|-----------------|----------------|--------------------|
| 1 | Project Coordination | | \$4,000 | 7/1/2001 | 6/30/2003 |
| | Kick-Off Meeting | CCWD, Pittsburg, and Antioch meet to coordinate project | | 7/2001 | 7/2001 |
| | Gather Materials | Purchase audit materials | | 7/2001 | 8/2001 & as needed |
| | Determine Target customers | Run analysis comparing summer use to winter use. | | 7/2001 | 8/2001 |
| | Ramp up staffing for surveys | Re assign or hire staff to conduct surveys | | 7/2001 | 8/2001 |
| 2 | Marketing | | \$6,000 | 8/2001 | 6/2003 |
| | Obtain target mailing | Print target-mailing labels and prepare marketing label and stuff envelopes for mailing. | | 7/2001 | 8/2001 |
| | Mail to customers | Mail 100 letters per week and adjust as necessary | | 7/2001 | 9/2001 |
| 3 | Conduct Surveys | | \$84,000 | | |
| | Coordinate surveyor schedule | Surveyors from Pittsburg and Antioch will be integrated into the CCWD schedule | | 8/2001 | 5/2003 |
| | Training for new surveyors | Surveyors to receive training on IPM and Bay Delta issues New surveyors will receive Irrigation Survey training | | 8/2001 | 9/2001 & as needed |
| | Conduct surveys with ride-along training | Surveys will be scheduled for trained surveyors with new staff ride-a-long and train | | 8/2001 | 9/2001 & as needed |
| | Conduct surveys post training | Surveys to be scheduled for all surveyors | | 8/2001 | 5/2003 |
| 4 | Evaluation Report | | \$6,000 | 7/1/2001 | 6/30/2003 |
| | Collect data | | | 7/1/2001 | 5/30/2003 |
| | Prepare report | | | 3/2003 | 6/15/2003 |
| | Submit to CALFED | | | | 6/15/2003 |

6. Monitoring and Assessment

The Survey Goals listed in section 3 will be monitored and assessed during and after the project. Below is a list of the methods and procedures that will be used to evaluate the success of each goal. At the end of the project all data collected for each program goal will be compiled into a report and submitted to CALFED and to the CUWCC for the information and use by other agencies.

| Program Goal | Evaluation Criteria |
|--|---|
| Improve customer's water use efficiency | Compare consumption pre and post survey with weather normalizing |
| Reduce peak demand on water resources | Compare consumption pre and post with weather normalizing during peak periods |
| Improve customer's knowledge of where their water comes from and where their irrigation runoff goes (have them become more aware of the "Water Cycle") | Conduct post SODS questionnaires to determine knowledge of topics |
| Teach customer how to schedule their irrigation timer | Conduct follow-up survey |
| Teach customer basic integrated pest management concepts and provide information on additional resources | Ask questions regarding pesticide use during surveys Conduct post survey surveys to determine changes in chemical uses |

Section C: Outreach, Community Involvement, and Information Transfer

1. Outreach Efforts

The SODS services will be offered at no cost to residents and will be marketed primarily based on water use regardless of income or neighborhood demographics. In addition to those selected for SODS based on above normal water consumption criteria SODS will, through a planned distribution of surveys throughout the involved communities, make a special effort to reach all socioeconomic groupings and the major cultural groups in the community. Since there is no cost for the resident, there will be need to configure SODS in any additional way to reach disadvantaged communities in the participating jurisdictions.

CCWD has conducted several distribution programs where low-income customers received free toilets. As all surveys are offered free of charge to residents, there is a large incentive to people in disadvantaged communities to use the program and save additional money on their water bills.

The City of Antioch offers free tours of its Water Treatment Plant (WTP) to schools in the area. In addition to the free tours, the WTP will pay for transporting students from schools without sufficient funds. The City of Antioch has also donated two compost bins and classroom recycling bins to the Environmental Science Program at Antioch High School. Through this partnership the City's water quality programs have been promoted to the students and other science teachers.

The City of Pittsburg's program "Roots and Shoots" is involving students in aquatic habitat and water quality protection by showing them how to monitor water quality and involving them in assessing local watershed water quality.

These efforts are cited as examples of the commitment of each of the agencies to reach out to all segments of their constituent/consumer communities with water quality and conservation messages. This commitment is a major part of why we want to do SODS and is an integral part of this effort.

2. Training and Employment and Capacity Building

CCWD is the only SODS agency that currently has trained water conservation personnel on staff. A major objective of SODS is to expand this capacity so that both Antioch and Pittsburg can conduct these conservation surveys to enhance the number of individuals reached by local water conservation program. During the first year of the project it is anticipated that CCWD's survey staff will serve as mentors to personnel from Antioch and Pittsburg and that during the project second year there will be a shifting of the survey responsibility to the surveyors from the two cities.

3. Program Results Dissemination

At the end of the project, we will prepare an evaluation report and submit it to CALFED as well as to the CUWCC for use by other water agencies. Depending on the outcome of the project, Pittsburg and Antioch will continue to conduct residential surveys through CCWD or alternatively, they may begin to implement their own programs. With either alternative, Pittsburg and Antioch will take the first steps towards implementing the Best Management Practices in a cost-effective manner. The expected results of SODS are listed below.

- Improved customer water use efficiency
- Reduced peak demand on water
- Improved customer knowledge of where their water comes from and where their irrigation runoff goes
- Improved customer understanding of how to schedule their irrigation timer
- Improved customer understanding of basic IPM concepts

4. Copy of Letter to a Potentially Impacted or Involved Agency

Please see the attached letter to the Contra Costa Clean Water Program

Section D: Qualifications of the Applicants, Cooperators, and Establishment of Partnerships

1. Resumes of Project Managers

Resumes for the project management team are attached.

2. Describe Role of External Cooperators

In addition to the principle agency partners SODS has aligned a component of the project's scope with the objectives of the Contra Costa Clean Water Program and its focus on reducing toxic runoff and the use of less toxic pest management practices.

3. Describe partnerships

The project team is listed in the table below.

Project Team

| Agency | Contact | Phone | Fax | Email | Position |
|-----------------------------|-----------------------|----------------|----------------|--|--------------------------------|
| City of Pittsburg | Dave Hobbs | (925) 252-4110 | (925) 252-4004 | dhobbs@ci.pittsburg.ca.us | Water Conservation Coordinator |
| City of Antioch | Julie Hass-Wasjdowicz | (925) 779-7097 | (925) 779-7034 | jhaaswajdowicz@ci.antioch.ca.us | Environ. Resources Coordinator |
| Contra Costa Water District | Chris Dundon | (925) 688-8136 | (925) 688-8122 | Cdundon@ccwater.com | Water Conservation Supervisor |

Section E: Costs and Benefits

1. Budget Summary

The total cost of the project is \$100,000. The agencies are requesting \$50,000 from CALFED. The remaining \$50,000 will be provided by the cities of Antioch, Pittsburg and CCWD. The cost share between CALFED and the Agencies is 50/50, respectively.

| Budget Item | Total Cost Est. | Pittsburg, Antioch, and CCWD share | CALFED share |
|--|------------------|------------------------------------|-----------------|
| Salaries (overhead and project management) | \$12,000 | \$8,000 | \$8,000 |
| Benefits (overhead and project management) | \$ 4,000 | \$2,000 | \$2,000 |
| Supplies (conservation devices and survey tools @ \$20 per survey) | \$12,000 | \$6,000 | \$6,000 |
| Equipment | \$0 | \$0 | \$0 |
| Professional Services (600 surveys @ \$140 per survey) | \$72,000 | \$34,000 | \$34,000 |
| Travel | | | |
| Total | \$100,000 | \$50,000 | \$50,000 |

2. Budget Justification

The largest cost component for this project is labor. CCWD will conduct the majority of the surveys during the first year while training staff from Pittsburg and Antioch. During the second year of the project, staff from Pittsburg and Antioch will increase the number of surveys they conduct. Surveys will generally take approximately 2 hours, with each surveyor conducting an average of 3 per day. Additional labor for the project includes the costs for coordinating the project, marketing the surveys and preparing the final report.

Equipment and supply costs include the purchase of conservation device giveaways and survey tools for new surveyors. Survey participants will generally receive; conservation literature, IPM literature, water-source literature, showerheads, aerators, and soil probes.

There are no direct travel costs for the project. Mileage and depreciation on vehicles used for surveys is included in the overall cost per survey.

3. Benefit Summary and Breakdown

a. Quantifiable Project Outcomes and Benefits

Based on CCWDs evaluation of surveys conducted in 1998 and an evaluation of the surveys in 1994 water savings from 600 surveys will be approximately 240AF over the life of the savings (see assumptions in section E.4.a).

b. Non-quantifiable Project Outcomes and Benefits

There are many project benefits that cannot be effectively quantified at this point in time. The key non-quantifiable outcomes and benefits are listed below.

| Non-quantifiable Project Outcomes and Benefits | Beneficiary |
|---|--------------|
| Reduce the amount of toxic runoff that reaches the Delta | All |
| Improve the Bay Delta ecosystem through the reduction in water diversions by the Agencies from the Bay Delta. Increased water use efficiency will have a direct benefit for the availability of water resources in the Delta | All |
| Improve and maintain local aquatic habitats by reducing the toxic runoff from pesticide and herbicide applications on residential gardens | All |
| Enhance capacity and commitment of participating agencies to support on-going water conservation effort | All |
| Energy savings as a result of less water be processed to meet consumer demand | P, A, & CCWD |
| Economic savings to customers from less water used as a result of the installation of water saving equipment | P and A |
| Provide needed relief for agency water distribution infrastructure. May allow for the meeting of future peak demand through smaller infrastructure enhancements in combination with demand management | P, A, & CCWD |
| Build greater community support for conservation and water source protection policies and behaviors by providing a comprehensive look at the full water cycle and how the behavior of individuals and agencies in the community can effect water quality and availability | All |

Beneficiary Code: CALFED (CF), Contra Costa Water District (CCWD), Antioch (A), Pittsburg (P), All agencies/ society (All)

4. Assessment of Costs and Benefits

a. Assumptions in calculating costs and benefits:

- Survey cost is \$140 per survey. This includes \$120 per survey in labor and overhead and \$20 per survey in materials. Assumes an average of 3 surveys completed per day per surveyor. Surveys will typically take 2 hours to complete
- Average water use at survey homes to be 470 gpd prior to the survey
- Water savings assumes 17%, 16%, 13%, 10%, 10% for the first 5 years following the survey and 2% per year for the next 5 years based on CCWD Survey Evaluations in 1994 and 1998
- Cost for raw water for municipalities is \$470 per acre foot (Based on Retailer cost of raw water)
- Average cost for treated water for Pittsburg and Antioch customers is \$2.00 per HCF
- Sustained reduction in consumer water usage can allow for the meeting of future demand with less water and with less infrastructure

b. – d. Benefits and Costs

The costs for the program and the benefits for the quantifiable savings are listed below are in year 2000 dollars.

| | Costs | Benefits (Over Life of Survey) | |
|-----------------------------------|--------------------|---------------------------------------|--------------------------|
| Participant | Program Costs (\$) | Savings (Water in AF) | Survey Life Savings (\$) |
| Pittsburg, Antioch and CCWD | \$50,000 | 240 AF | \$112,800 |
| CALFED | \$50,000 | 240 AF | Not Quantified |
| Customer | \$0 | 240 AF | \$209,000 |